

1. A modification method of sandwiching a commercially available tubular stent with a polymeric composite membrane is invented.
2. The polymeric composite membrane of claim 1, wherein is durable, which undergoing several crimping and expansion circles without broken nor pinhole.
3. The polymeric composite membrane of claim 1, wherein is two layers. The outside layer polymer has mechanical advantages such as high degree of elasticity, excellent durability and having been approved for some clinic application.
4. The polymers of the outside layer of the polymeric composite membrane of claim 1, wherein are silicon, poly(ethylene) glycol, polyurethane or polyurea or their derivatives.
5. The inside polymeric layer of the polymeric composite membrane of claim 1, wherein is, covalently and vertically, bonded to the outside polymeric layer and at the some time is cross-linking with itself.
6. The polymers of the inside layer of the polymeric composite membrane of claim 1, wherein are silicon, poly(ethylene) glycol, polyurethane or polyurea or their derivatives.
7. Not only this layer of polymer is biocompatible, but also it requires limited smooth muscle cells' proliferation. In some cases, the inside polymeric layer can be used as a platform of control drug release device.
8. Another aspect of the present invention provides that the modification method could be used to produce both large stent applicable in large vessels(greater or equal to 3 mm diameter) and small stent applicable in small vessels (less than

3.0 mm diameter and can be crimped on a 1.5 mm angioplasty balloon catheter), and to produce customer length tubular stent.